

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions of claims in this application. Please cancel claim 1, 5-13, and 15, without prejudice or disclaimer, and amend claims 2 and 16, as follows:

1. (Canceled).
2. (Currently Amended) ~~[[The]]~~ A semiconductor device ~~according to claim 1~~ ~~[[,]]~~

comprising:

an insulator film formed on a substrate;

a wiring layer of copper formed proximate the insulator film; and

a crystalline film containing tungsten, carbon, and nitrogen for preventing

copper diffusion from the wiring layer to the insulator film, the

crystalline film arranged between the insulator film and the wiring

layer,

wherein the crystalline film, when subjected to X-ray diffraction, has a spectrum having a first peak between 36 degrees and 38 degrees and a second peak between 42 degrees and 44 degrees.

3. (Previously Presented) The semiconductor device of claim 2, wherein a half-width of the first peak is 3.2 degrees or less.
4. (Previously Presented) The semiconductor device of claim 2, wherein a half-width of the second peak is 2.6 degrees or less.

5-15. (Canceled).

16. (Currently Amended) ~~[[The]]~~ A semiconductor device ~~according to claim 15~~ ~~[[,]]~~

comprising:

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an insulator film formed on a substrate;

a WC_xN_y crystalline film formed on the insulator film; and

a wiring layer of copper formed on the crystalline film,

wherein the crystalline film prevents copper diffusion from the wiring layer
to the insulator film, and

wherein the crystalline film, when subjected to X-ray diffraction, has a
spectrum having a first peak between 36 degrees and 38 degrees and
a second peak between 42 degrees and 44 degrees.

17. (Previous Presented) The semiconductor device according to claim 16, wherein a half-width of the first peak is 3.2 degrees or less.
18. (Previous Presented) The semiconductor device according to claim 16, wherein a half-width of the second peak is 2.6 degrees or less.